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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,098	06/13/2001	Mayumi Tomikawa	826.1729	3219

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EXAMINER

KNOWLIN, THJUAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,098

Applicant(s)

TOMIKAWA ET AL.

Examiner

Thjuan P. Knowlin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/15/06 has been entered.

2. Applicant's amendment filed 05/15/06 has been entered. Claims 1, 13, 14, 15, 19, 20, 21, 22, 23, and 24 have been amended. Claim 25 has been cancelled. No claims have been added. Claims 1-24 and 26 are now pending in this application, with claim 1, 13, 14, 15, 19, 20, 21, 22, 23, and 24 being independent.

Claim Rejections - 35 USC § 101

3. Claims 13 and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. In regards to claim 13, lines 1-2 recite "a program", however, it should recite a computer program. Data structures not claimed as embodied in computer-readable media are descriptive material, and are not statutory, because they are not capable of causing functional change in the computer. Such claimed data structures do not define any structural and functional interrelationships between the data structure and other

claimed aspects of the invention, which permit the data structure's functionality to be realized.

5. In regards to claim 14, line 1 recite "a propagation signal". Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, and such, are nonstatutory natural phenomena. A claimed signal is clearly not a "process", because it is not a series of steps.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodialam et al (US 6,778,531), in view of Auerbach (US 6,832,253).

7. In regards to claims 1, 4, 6, 7, 9, 10, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, and 24, Kodialam discloses a distribution route generation apparatus and method (See col. 3-4 lines 51-21), comprising: a collection device (See Fig. 3 and network management module 305) collecting information about a communication cost between a plurality of nodes (See Fig. 3 and nodes N1-N11) of a communication network (See Fig. 3 and network 300) (See col. 1-2 lines 53-8, col. 5 lines 1-25, col. 8 lines 4-12, and col. 10 lines 30-48) the nodes including a plurality of redistribution servers (e.g. distributed

router servers, See col. 5 lines 1-12) which copy and branch streaming data at respective branch points in the communication network to multi-cast the streaming data in an application layer (See col. 1 lines 14-30); a generation device (e.g. router server within the network management module 305 or See Fig. 6, router 600, and col. 14 lines 46-63) automatically generating distribution route information, which indicates a plurality of distribution routes to a plurality of clients on the communications network through at least one of the redistribution servers from a source, based on the information about the communications cost when streaming data are originated and distributed from the source to the plurality of clients; and an output device (e.g. multicast routing tree or server) outputting the distribution route information (See col. 3 lines 13-24, col. 6 lines 14-36, col. 7 lines 25-41, and col. 11-12 lines 63-11). Kodialam, however, does not disclose the cost as being based on delay and number of hops. Auerbach, however, does disclose the cost as being based on delay (e.g. measured congestion on the network path between the nodes) and number of hops (See col. 2 lines 30-45, col. 8 lines 16-28, and col. 10 lines 10-21). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to employ this feature within the apparatus and method, as a way of calculating proximity dynamically and automatically in order to decide whether to move content based upon the proximity calculation, such as delay (e.g. measured congestion on the network path between the nodes) and number of hops. This would improve and optimize the delivery of content to client devices and end-users.

8. In regards to claims 2, 3, and 18, Auerbach discloses the distribution route generation apparatus, wherein said generation device generates the distribution route information by selecting a receiver node in such a way that a communications cost between the source and the receiver node is minimized (See Fig. 1, col. 5-6 lines 66-14, and col. 8 lines 16-28).

9. In regards to claim 5, Kodialam discloses the distribution route generation apparatus, wherein said generation device divides the nodes into the groups using a branch in which a communications cost between nodes is equal to or more than a threshold value, as a boundary (See col. 1-2 lines 53-8, col. 8 lines 4-12, col. 11-12 lines 63-11, and col. 13 lines 52-67).

10. In regards to claim 8, Kodialam discloses the distribution route generation apparatus, wherein said restriction device detects a router located within a first restricted number of hops from a measuring node performing measurement, based on information about a route from the source to the measuring node and designates a node located within a second restricted number of hops from the detected router as a measurement target (See col. 3 lines 29-48 and col. 10 lines 30-48).

11. In regards to claims 11 and 12, Kodialam discloses the distribution route generation apparatus, wherein said generation device further generates distribution route information indicating a substitute distribution route, excluding a part in which a failure is anticipated to occur on the communications network (See col. 5 lines 26-35).

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12. In regards to claim 26, Auerbach discloses a system, wherein the network comprises the Internet (See Fig. 2A, Internet or wide area network 203, and col. 6 lines 15-17).

Response to Arguments

13. Applicant's arguments with respect to claims 1-24 and 26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Daley et al (US 6,256,309) teach quality of service sensitive routes precomputed in bandwidth brackets. Johann (US 5,471,467) teaches routing logic means and method for distributing a packet among network nodes.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thjuan P. Knowlin whose telephone number is (571) 272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thjuan P. Knowlin



WING CHAN
SUPERVISORY PATENT EXAMINER